

CLAIMS

1. A method of manufacturing a window assembly including a window pane attachable to a predetermined window frame, a long
5 covering member made of a polymer material and formed integrally along at least a part of a peripheral edge of the window pane in order that a gap between the window pane and the window frame may be covered by the covering member and a positioning member secured to a back surface of the peripheral edge of the window
10 pane so as to be away from the covering member toward a surface center of the window pane in order that the window pane may be positioned relative to the window frame, the method comprising:
an adhesive applying step continuously applying an adhesive to a predetermined adhesion area of the covering member of the
15 window pane and a predetermined adhesion area of the positioning member and a holding portion holding the positioning member so that adhesive layers of both predetermined adhesion areas are continuous via a predetermined adhesive connection area to each other;
20 a forming step in which the window pane to which the adhesive has been applied and the positioning member are set in an injection mold having a cavity for forming the covering member, a cavity for forming the holding portion and a polymer material flow cavity causing both cavities to communicate with each other
25 at a position other than the adhesive connection area, and a predetermined polymer material is injected into the injection mold to fill the injection mold so that the covering member and the holding portion are formed into a shape obtained by connecting

the covering member and the holding portion to each other by a material flow connection portion formed by the polymer material flow cavity and so that the covering member and the holding portion are adhered via the respective adhesive layers to the window pane thereby to be fixed; and

a step of removing the material flow connection portion after the forming step.

2. A method of manufacturing a window assembly including a window pane attachable to a predetermined window frame, a long covering member made of a polymer material and formed integrally along at least a part of a peripheral edge of the window pane in order that a gap between the window pane and the window frame may be covered by the covering member and a positioning member secured to a back surface of the peripheral edge of the window pane so as to be away from the covering member toward a surface center of the window pane in order that the window pane may be positioned relative to the window frame, the method comprising:

an adhesive applying step continuously applying an adhesive to a predetermined adhesion area of the covering member of the window pane and a predetermined adhesion area of a holding portion holding the positioning member so that adhesive layers of both predetermined adhesion areas are continuous via a predetermined adhesive connection area to each other;

a forming step in which the window pane to which the adhesive has been applied is set in an injection mold having a cavity for forming the covering member, a cavity for forming the holding portion and a polymer material flow cavity causing both cavities

to communicate with each other at a position other than the adhesive connection area, and a predetermined polymer material is injected into the injection mold to fill the injection mold so that the covering member and the holding portion are formed
5 into a shape obtained by connecting the covering member and the holding portion to each other by a material flow connection portion formed by the polymer material flow cavity and so that the covering member and the holding portion are adhered via the respective adhesive layers to the window pane thereby to be fixed;
10 a step of removing the material flow connection portion after the forming step; and
a step of attaching the positioning member to the holding portion after the forming step.

15 3. A method of manufacturing a window assembly including a window pane attachable to a predetermined window frame, a long covering member made of a polymer material and formed integrally along at least a part of a peripheral edge of the window pane in order that a gap between the window pane and the window frame
20 may be covered by the covering member and a positioning member secured to a back surface of the peripheral edge of the window pane so as to be away from the covering member toward a surface center of the window pane in order that the window pane may be positioned relative to the window frame, the method comprising:
25 an adhesive applying step continuously applying an adhesive to a predetermined adhesion area of the covering member of the window pane and a predetermined adhesion area of the positioning member so that adhesive layers of both predetermined adhesion

areas are continuous via a predetermined adhesive connection area to each other;

a forming step in which the window pane to which the adhesive has been applied is set in an injection mold having a cavity for forming the covering member, a cavity for forming the positioning member and a polymer material flow cavity causing both cavities to communicate with each other at a position other than the adhesive connection area, and a predetermined polymer material is injected into the injection mold to fill the injection mold so that the covering member and the positioning member are formed into a shape obtained by connecting the covering member and the positioning member to each other by a material flow connection portion formed by the polymer material flow cavity and so that the covering member and the holding portion are adhered via the respective adhesive layers to the window pane thereby to be fixed; and

a step of removing the material flow connection portion after the forming step.

4. The window assembly manufacturing method according to any one of claims 1 to 3, comprising that in the adhesive applying step, an application range of the adhesive applied to the predetermined adhesion area of the positioning member of the window pane and/or the predetermined adhesion area of the holding portion is broader than an outer configuration of an end face of the positioning member and/or the holding portion at the adhesive side.

5. The window assembly manufacturing method according to any one of claims 1 to 3, comprising that the window pane is moved in the adhesive applying step while an applying head for applying the adhesive to the window pane is fixed to a position.

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6. The window assembly manufacturing method according to any one of claims 1 to 3, comprising that in the forming step, a tab is formed integrally on the material flow connection portion formed by the polymer material flow cavity so as to protrude in
10 such a direction as to depart from the back surface of the window pane.

7. The window assembly manufacturing method according to any one of claims 1 to 3, comprising that at least a part of
15 the window pane to which the adhesive is applied is previously heated in the forming step.

8. A method of manufacturing a window assembly including a window pane attachable to a predetermined window frame, a long
20 covering member made of a polymer material and formed integrally along at least a part of a peripheral edge of the window pane in order that a gap between the window pane and the window frame may be covered by the covering member, a positioning member secured to a back surface of the peripheral edge of the window
25 pane so as to be away from the covering member toward a surface center of the window pane in order that the window pane may be positioned relative to the window frame, the method comprising :
using the window pane including a predetermined adhesion

area of the covering member and a predetermined adhesion area of the positioning member and a holding portion holding the positioning member, an adhesive being continuously applied to the predetermined adhesion areas so that adhesive layers of both
5 predetermined adhesion areas are continuous via a predetermined adhesive connection area to each other;

a forming step in which the window pane to which the adhesive has been applied and the positioning member are set in an injection mold having a cavity for forming the covering member,
10 a cavity for forming the holding portion and a polymer material flow cavity causing both cavities to communicate with each other at a position other than the adhesive connection area, and a predetermined polymer material is injected into the injection mold to fill the injection mold so that the covering member and
15 the holding portion are formed into a shape obtained by connecting the covering member and the holding portion to each other by a material flow connection portion formed by the polymer material flow cavity and so that the covering member and the holding portion are adhered via the respective adhesive layers to the
20 window pane thereby to be fixed; and

a step of removing the material flow connection portion after the forming step.

9. A method of manufacturing a window assembly including
25 a window pane attachable to a predetermined window frame, a long covering member made of a polymer material and formed integrally along at least a part of a peripheral edge of the window pane in order that a gap between the window pane and the window frame

may be covered by the covering member, a positioning member secured to a back surface of the peripheral edge of the window pane so as to be away from the covering member toward a surface center of the window pane in order that the window pane may be positioned relative to the window frame, the method comprising :

5 using the window pane including a predetermined adhesion area of the covering member and a predetermined adhesion area of a holding portion holding the positioning member, an adhesive being continuously applied to the predetermined adhesion areas so that adhesive layers of both predetermined adhesion areas are continuous via a predetermined adhesive connection area to each other;

a forming step in which the window pane to which the adhesive has been applied is set in an injection mold having a cavity for forming the covering member, a cavity for forming the holding portion and a polymer material flow cavity causing both cavities to communicate with each other at a position other than the adhesive connection area, and a predetermined polymer material is injected into the injection mold to fill the injection mold so that the covering member and the holding portion are formed into a shape obtained by connecting the covering member and the holding portion to each other by a material flow connection portion formed by the polymer material flow cavity and so that the covering member and the holding portion are adhered via the respective adhesive layers to the window pane thereby to be fixed;

25 a step of removing the material flow connection portion after the forming step; and

a step of attaching the positioning member to the holding

portion after the forming step.

10. A method of manufacturing a window assembly including a window pane attachable to a predetermined window frame, a long
5 covering member made of a polymer material and formed integrally along at least a part of a peripheral edge of the window pane in order that a gap between the window pane and the window frame may be covered by the covering member, a positioning member secured to a back surface of the peripheral edge of the window
10 pane so as to be away from the covering member toward a surface center of the window pane in order that the window pane may be positioned relative to the window frame, the method comprising :

using the window pane including a predetermined adhesion area of the covering member and a predetermined adhesion area
15 of the positioning member, an adhesive being continuously applied to the predetermined adhesion areas so that adhesive layers of both predetermined adhesion areas are continuous via a predetermined adhesive connection area to each other;

a forming step in which the window pane to which the adhesive
20 has been applied is set in an injection mold having a cavity for forming the covering member, a cavity for forming the positioning member and a polymer material flow cavity causing both cavities to communicate with each other at a position other than the adhesive connection area, and a predetermined polymer material
25 is injected into the injection mold to fill the injection mold so that the covering member and the positioning member are formed into a shape obtained by connecting the covering member and the positioning member to each other by a material flow connection

portion formed by the polymer material flow cavity and so that the covering member and the holding portion are adhered via the respective adhesive layers to the window pane thereby to be fixed; and

- 5 a step of removing the material flow connection portion after the forming step.

11. A window pane attachable to a predetermined window frame, comprising a predetermined area to which a long covering member
10 made of a polymer material is attached, the covering member being formed integrally along at least a part of a peripheral edge of the window pane in order that a gap between the window pane and the window frame may be covered by the covering member, and a predetermined area to which a positioning member and/or a holding
15 portion holding the positioning member is attached, the positioning member and/or the holding portion being secured to a back surface of the peripheral edge of the window pane so as to be away from the covering member toward a surface center of the window pane in order that the window pane may be positioned
20 relative to the window frame, and in that an adhesive is continuously applied to both predetermined areas so that adhesive layers of both predetermined areas are continuous via a predetermined adhesive connection area to each other.